

HYDROTREATING OF COMPONENTS FOR REFINERY
BLENDING OF TRANSPORTATION FUELS

ABSTRACT OF THE INVENTION

- 5 Economical processes are disclosed for the production of components for refinery blending of transportation fuels by selective hydrogenation of sulfur-containing and/or nitrogen-containing organic compounds contained in mixtures of hydrocarbons which are liquid at ambient conditions. Integrated
10 hydrotreating processes of this invention advantageously provide their own source of high-boiling hydrogenation feedstock derived, for example, by fractionation of hydrotreated petroleum distillates. The high-boiling hydrogenation feedstock consisting essentially of material boiling between about 200° C. and about 425° C. and
15 having a sulfur content up to about 2,500 ppm, is contacted with a gaseous source of dihydrogen at hydrogenation conditions in the presence of a hydrogenation catalyst which exhibits a capability to enhance the incorporation of hydrogen into one or more of the sulfur-containing and/or nitrogen-containing organic compounds
20 and under conditions suitable for hydrogenation of one or more of the sulfur-containing organic compounds, thereby producing a product comprising a mixture of hydrocarbons and other organic compounds and having a sulfur content less than about 35 ppm of sulfur. Advantageously, all or a portion of the product is blended
25 with a low-boiling fraction of a hydrotreated distillate to produce a distillate fuel having a sulfur content of less than 15 ppm.
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